

**PATENT APPLICATION**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q96134

Koji KUBO, et al.

Appln. No.: 10/587,163

Group Art Unit: 1752

Confirmation No.: 4858

Examiner: not yet assigned

Filed: July 26, 2006

For: LAMINATED FILM FOR DYE-SENSITIZED SOLAR CELL AND ELECTRODE FOR  
DYE-SENSITIZED SOLAR CELL, AND PROCESS FOR THEIR PRODUCTON

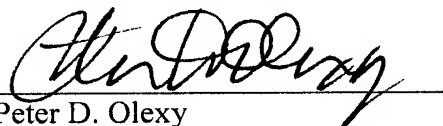
**SUBMISSION OF IPER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith for the Examiners consideration is a copy of the IPER in the  
corresponding PCT application.

Respectfully submitted,



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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: April 2, 2008

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)
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Applicant's or agent's file reference <b>TD-541</b>	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. <b>PCT/JP2005/001641</b>	International filing date (day/month/year) <b>28.01.2005</b>	Priority date (day/month/year) <b>30.01.2004</b>
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International Patent Classification (IPC) or both national classification and IPC
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Applicant <b>TEIJIN DUPONT FILMS JAPAN LIMITED</b>
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1. This opinion contains indications relating to the following items:
- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input checked="" type="checkbox"/> | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/IP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/001641

Box No. 1 Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in the international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
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PCT/JP2005/001641

Box No. IV

Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
- ☒ paid additional fees
  - ☐ paid additional fees under protest
  - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:

See the supplemental sheet.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

- ☒ all parts
- ☐ the parts relating to claims Nos. \_\_\_\_\_

## International application No.

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/001641

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

aforementioned documents 1-9. In any of documents, regarding a transparent conductive film to be an electrode substrate of a dye-sensitized solar cell, it is not described nor suggested that a polyester film having a particular thermal shrinkage condition should be used, and an effect of employment of the said specified matter, which is described in the description, is not described nor suggested.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/001641

**Box No. VI**      **Certain documents cited**

**1. Certain published documents (Rule 43bis.1 and 70.10)**

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
JP 2004-265662 A [E, A]	24.09.2004	28.02.2003	
JP 2005-56627 A [E, A]	03.03.2005	31.07.2003	
JP 2004-9362 A [E, A]	15.01.2004	04.06.2002	

**2. Non-written disclosures (Rule 43bis.1 and 70.9)**

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

IV

In order for a group of inventions claimed in claims to satisfy the requirement of unity of invention, there must be special technical features for linking the group of inventions so as to form a single general inventive concept. In this connection, the inventions of two independent claims consisting of claim 1 and 11 recited in independent form and claims dependent there from are linked with each other only in relating to a "dye-sensitized solar cell comprising a polyester film and, superimposed on one major surface thereof, a transparent conductive layer." However, it is apparent that the dye-sensitized solar cell per se cannot be a special technical feature.

Furthermore, the relationship between the film (substance) of claim 1 and the production process of claim 11 will be studied. Even after thorough review of the whole description, although the production process of claim 11 is for obtaining of an electrode for dye-sensitized solar cell excelling in adhesion between transparent conductive layer and porous semiconductor layer (seen from what is described on page 10 of the description, etc.), it does not appear that the production process is for satisfying of specified conditions as a surface tension of transparent conductive layer that is specified in claim 1 (as treatment for attaining specified surface tension conditions, plasma treatment and some other means are explicitly described on page 7 of the description). From the above study, it does not appear that the invention of "production process" claimed in claim 11 is a process for producing the "substance" according to the invention of claim 1.

Consequently, among the group of inventions claimed in claims 1-11, there exist no special technical features for linking them so as to form a single general inventive concept. Therefore, it is apparent that the group of inventions claimed in claims 1-13 do not satisfy the requirement of unity of invention.

In summing up, without the need to study claims recited in dependent form, it appears that claims 1-13 cover at least two inventions.

One of possible ways to satisfy unity is clarifying that the invention of claim 11 shares a specified matter of claim 1.

Documents

1. JP, 11-288745, A (Nikon Corp.), 19 October, 1999 (19.10.99)
2. JP, 2002-50413, A (Japan Gore-Tex Inc.), 15 February, 2002 (15.02.02)
- X 3. WO, 2002-052654, A1 (Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyujo), 4 July, 2002 (04.07.02)
4. JP, 2002-280327, A (Lintec Corp.), 27 September, 2002 (27.09.02)
5. JP, 2003-68373, A (Aisin Seiki Co., Ltd.), 7 March, 2003
6. JP, 2003-234028, A (Konica Corp.), 22 August, 2003 (22.08.03)
7. JP, 2003-308893, A (Bridgestone Corp.), 31 October, 2003 (31.10.03)